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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,051	04/26/2001	Masahiko Miyamoto	03409.0066	6514
22852	7590	07/16/2003	FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 1300 I STREET, NW WASHINGTON, DC 20005	EXAMINER PASSANITI, SEBASTIANO
			ART UNIT 3711	PAPER NUMBER
			DATE MAILED: 07/16/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application N .</b>	<b>Applicant(s)</b>	
	09/842,051	MIYAMOTO, MASAHIKO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sebastiano Passaniti	3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 June 2003.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3,4,6,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3,4,6,12 and 13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ .                                   |

## DETAILED ACTION

This Office action is responsive to communication received 06/27/2003 – Request for One Month Extension of Time, Request for Continued Examination (RCE) and Amendment B.

Claims 1, 3, 4, 6, 12 and 13 remain pending.

Following is an action on the MERITS:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomson. Note that Thomson shows that the upper face of the head is rounded while the lower face is flat, as evidenced by the language in col. 3, lines 24-47. The roll radius of the upper face is about .700 inch, which meets the claimed limitation requiring a roll radius of 305 mm or less. The lower face is flat or planar and therefore meets the claimed limitation that the lower portion must have a roll radius of 310 mm or more.

Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomson in view of Reuter. To have modified the device in the cited art reference to

Thomson by fabricating the putter with a hollow metal construction to help redistribute weight and to take advantage of convenient casting techniques for the manufacture of the head would have been obvious in view of the patent to Reuter, which shows it to be old in the art to fabricate a club head putter as a hollow metal article in order to reduce the weight of the head. See col. 1, lines 48-60 in Reuter.

Claims 1, 3, 4 and 6 STAND rejected and claims 12 and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Werner in view of Masghati. Werner shows the underlying theme of applicant's claimed invention and includes a wood-type club head having a face divided into upper and lower portions, with the roll radius of the upper portion being less than the roll radius of the lower portion. Reference is made to Figure 8 in Werner and the discussion in column 9, lines 31-51, wherein Werner details that the lower part of the face defines a flattened portion (34), while the upper portion is defined by a curvature (roll). As a matter of simply referencing the manner in which Werner is most closely related to applicant's claimed invention, note that impact point (32) in the Werner patent would appear to correlate to point "SS" shown in applicant's Figure 1. Werner differs from the claimed invention in that Werner does not show the precise, claimed radii for the face, specifically a roll radius of 305 mm or less for the upper portion and a roll radius of between 310 mm or more for the lower portion. The secondary reference to Masghati highlights that a roll radius of at least 9 ½ inches (241.3 mm) and as much as 16 inches (406 mm) is known to have been contemplated in the prior art clubfaces, noting that an increase in the radius of curvature tends to flatten the roll somewhat, but results in a more nearly uniform loft angle from the top to

the bottom of the club. See column 2, lines 44-49 along with column 4, line 55 through column 5, line 10 and Figures 10 and 12 in Masghati. In view of the patent to Masghati, it would have been obvious to modify the device in the cited art reference to Werner by incorporating a roll radius of between 305 mm or less for the upper portion and a roll radius of between 310 mm or more for the lower portion, the motivation being to desirably affect the trajectory of a struck ball. Further, the claimed, dimensional limitations are not deemed critical. Insofar as the claimed requirements that the club head include a hollow, metallic structure, note that Werner suggests, for example, that the club in Figure 7 is modeled after what is typically known as a "wood" and is more commonly made of metal (column 4, lines 56-57). Moreover, the teaching reference to Masghati obviates the use of hollow, metallic shell structure for the club head by noting that the use of "wood" and "wood-type" are not literally restricting, but may incorporate club heads shaped like traditional wooden club heads and alternatively made of metal, plastic and other materials (column 6, lines 53-57).

#### RESPONSE TO ARGUMENTS

In the arguments received 06/27/2003, the applicant contends that the prior art reference to Werner does not show a simple curve that can be generated by a radius on line (33). Moreover, the applicant contends that Masghati et al teaches curving only the entire face and further notes that if the Masghati reference were used to modify the Werner device, the resulting club head would be a clubface in the Werner patent having a single curve.

In response to these arguments, it is noted that the applicant appears to have again attacked the references individually. Where the combination is based upon a combination of references as is the case here, it is improper to show non-obviousness by separately deciphering each reference. See In re Keller, 208 USPQ 871 (CCPA 1981). In this case, it is the primary reference to Werner that sets forth the basic invention, as claimed by the applicant. In other words, it is the Werner teaching that details that it is old in the art to provide a dual roll radii striking face. See col. 4, lines 24-30 in Werner. *In addition, Werner indicates that the curvature toward the toe "may" be different from the curvature toward the heel and that similar adjustments in the vertical direction are allowed. Hence, up to four curvatures "can" be judged.* See col. 6, lines 64-67. Werner does not detail that the upper face section must have plural curvatures, only that the curvature can have more than what applicant has labeled a simple curve. Furthermore, it must be noted, that the applicant's claim is cast in open terminology, that is, a golf club head comprising. There is nothing in the claim that precludes there being more than one curvature, i.e., a bulge radius, or for that matter, more than one roll radius. Masghati simply details the benefits of radii of specific values. The fact that Masghati reveals a constant roll radius from top-to-bottom for the striking face is immaterial. What the skilled artisan extols from the reference is the fact that a higher value for the roll radius tends to flatten out the roll and may produce a more uniform loft angle. In addition, Masghati appears to suggest that the value of the roll is commensurate with the degree of uniformity in loft. In other words, the value of the variable "roll" is recognized as being result-effective. Where a parameter optimized

is recognized as being result-effective, that optimization is normally considered an obvious matter to one of ordinary skill in the art. See In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). As Werner already contemplates the use of both a flattened and less-than-flat roll radius, it is clear that combining the Werner and Masghati teachings would have been obvious to the skilled artisan, as both references are concerned with the effect of the roll radius on the trajectory of a struck ball. Moreover, under the circumstances here, it is deemed that the applicant's claimed dimensions involve no more than the optimization of a result-effective variable and would have been obvious to one having ordinary skill in the art, based on the teachings in Masghati.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sebastiano Passaniti whose telephone number is 703-308-1006. The examiner can normally be reached on Mon-Fri (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Sewell can be reached on 703-308-2126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3579 for regular communications and 703-308-7768 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

  
Sebastiano Passaniti  
Primary Examiner  
Art Unit 3711

S.Passaniti/sp  
July 11, 2003